

CLAIMS:

What is claimed is:

- 5 1. A method for providing channel numbers, comprising:
 receiving at least one domestic digital data transmission (100) and at least one
foreign digital data transmission (110);
 wherein the at least one domestic digital data transmission and the at least one
foreign digital data transmission include logical channel number data for channels of
10 programs therein;
 assigning channel numbers for the channels of programs in the at least one
domestic digital data transmission according to the logical channel number data therein;
and
 assigning channel numbers for the channels of programs in the at least one foreign
15 digital data transmission that are in a higher range than the channel numbers for the
channels of programs in the at least one domestic digital data transmission.
2. The method of claim 1, wherein:
 the receiving at least one domestic digital data transmission comprises receiving a
20 plurality of domestic digital data transmissions of the same digital data service from
different transmitters, and the plurality of domestic digital data transmissions include
logical channel number data for channels of programs therein; and
 the assigning channel numbers for the channels of programs in the at least one
domestic digital data transmission comprises assigning channel numbers according to the
25 logical channel number data included in a particular one of the plurality of domestic digital
data transmissions that has a strongest service, among the plurality of domestic digital data
transmissions, for the channels of programs therein.

3. The method of claim 2, wherein:

the particular one of the plurality of domestic digital data transmissions has the strongest service when its quality alone is highest among the plurality of domestic digital data transmissions; and

5 the particular one of the domestic digital data transmissions has the strongest service when its signal strength alone is highest among at least two of the plurality of domestic digital data transmissions that have the same highest quality.

4. The method of claim 2, wherein:

10 the particular one of the plurality of domestic digital data transmissions has the strongest service when its frequency is highest among at least two of the plurality of domestic digital data transmissions that have the same highest quality and the same highest signal strength.

15 5. The method of claim 2, wherein:

the channel numbers for the channels of programs in the plurality of domestic digital data transmissions other than the particular one of the domestic digital data transmissions that has the strongest service are grouped in at least one group, and are in a higher range than the channel numbers for the channels of programs in the particular one of
20 the domestic digital data transmissions that has the strongest service.

6. The method of claim 2, wherein:

the channel numbers for the channels of programs in the plurality of domestic digital data transmissions other than the particular one of the domestic digital data
25 transmissions that has the strongest service are grouped in a plurality of groups in order of decreasing service strength.

7. The method of claim 2, wherein:

the channel numbers for the channels of programs in the plurality of domestic
30 digital data transmissions other than the particular one of the domestic digital data transmissions that has the strongest service are assigned according to a sorted order.

8. The method of claim 2, wherein:

the channel numbers for the channels of programs in the plurality of domestic digital data transmissions other than the particular one of the domestic digital data transmissions that has the strongest service precede the channel numbers for the channels of programs in the at least one foreign digital data transmission.

9. The method of claim 1, wherein:

the receiving at least one foreign digital data transmission comprises receiving a plurality of foreign digital data transmissions that each include logical channel number data for channels of programs therein;

the assigning channel numbers for the channels of programs in the at least one foreign digital data transmission comprises assigning channel numbers for channels of programs in the plurality of foreign digital data transmissions; and

the channel numbers for the channels of programs in the plurality of foreign digital data transmissions are grouped in respective groups, and are in a higher range than the channel numbers for the channels of programs in the at least one domestic digital data transmission.

10. The method of claim 1, wherein:

the channel numbers for the channels of programs in the at least one foreign digital data transmission are assigned according to a sorted order.

11. The method of claim 1, wherein:

the at least one domestic digital data transmission and at least one foreign digital data transmission comprise at least one of audio and video data.

12. The method of claim 1, wherein:

the at least one domestic digital data transmission and at least one foreign digital data transmission are provided in at least one of respective broadcasts, multicasts and streaming content.

13. A method for providing logical channel numbers, comprising:
receiving a plurality of domestic digital data transmissions of digital data services
with different regional content;
wherein the plurality of domestic digital data transmissions include logical channel
5 number data for channels of programs therein;
determining a particular one of the plurality of domestic digital data transmissions
that has the strongest service;
assigning channel numbers for the channels of programs in the particular one of the
domestic digital data transmissions that has the strongest service, according to the logical
10 channel number data therein; and
assigning channel numbers, for the channels of programs in the plurality of
domestic digital data transmissions other than the particular one of the domestic digital
data transmissions that has the strongest service, that are grouped in at least one group, and
that are in a higher range than the channel numbers for identifying the channels of
15 programs in the particular one of the domestic digital data transmissions that has the
strongest service.
14. The method of claim 13, wherein:
the channel numbers for the channels of programs in the plurality of domestic
20 digital data transmissions other than the particular one of the domestic digital data
transmissions that has the strongest service, are assigned according to a sorted order.
15. The method of claim 13, wherein:
the channel numbers for the channels of programs in the plurality of domestic
25 digital data transmissions other than the particular one of the domestic digital data
transmissions that has the strongest service, are grouped in a plurality of groups in order of
decreasing service strength.

16. The method of claim 13, wherein:

the particular one of the domestic digital data transmissions has the strongest service when its quality alone is highest among the plurality of domestic digital data transmissions; and

5 the particular one of the domestic digital data transmissions has the strongest service when its signal strength alone is highest among at least two of the plurality of domestic digital data transmissions that have the same highest quality.

17. The method of claim 13, wherein:

10 the particular one of the plurality of domestic digital data transmissions has the strongest service when its frequency is highest among at least two of the plurality of domestic digital data transmissions that have the same highest quality and the same highest signal strength.

15 18. A program storage device tangibly embodying a program of instructions executable by a machine to perform a method for providing channel numbers, the method comprising:

receiving at least one domestic digital data transmission (100) and at least one foreign digital data transmission (110);

20 wherein the at least one domestic digital data transmission and the at least one foreign digital data transmission include logical channel number data for channels of programs therein;

assigning channel numbers for the channels of programs in the at least one domestic digital data transmission according to the logical channel number data therein;

25 and

assigning channel numbers for the channels of programs in the at least one foreign digital data transmission that are in a higher range than the channel numbers for the channels of programs in the at least one domestic digital data transmission.

30 19. A program storage device tangibly embodying a program of instructions executable by a machine to perform a method for providing channel numbers, the method comprising:

receiving a plurality of domestic digital data transmissions (100, 110, 120) of digital data services with different regional content;

wherein the plurality of domestic digital data transmissions include logical channel number data for channels of programs therein;

5 determining a particular one of the plurality of domestic digital data transmissions that has the strongest service;

assigning channel numbers for the channels of programs in the particular one of the domestic digital data transmissions that has the strongest service, according to the logical channel number data therein; and

10 assigning channel numbers, for the channels of programs in the plurality of domestic digital data transmissions other than the particular one of the domestic digital data transmissions that has the strongest service, that are grouped in at least one group, and that are in a higher range than the channel numbers for identifying the channels of programs in the particular one of the domestic digital data transmissions that has the
15 strongest service.

20. A receiver for providing channel numbers, comprising:

means for receiving (200, 202) at least one domestic digital data transmission and at least one foreign digital data transmission;

20 wherein the at least one domestic digital data transmission and the at least one foreign digital data transmission include logical channel number data for channels of programs therein;

means for assigning (203) channel numbers for the channels of programs in the at least one domestic digital data transmission according to the logical channel number data
25 therein; and

means for assigning (203) channel numbers for the channels of programs in the at least one foreign digital data transmission that are in a higher range than the channel numbers for the channels of programs in the at least one domestic digital data transmission.